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**Title:** Association between dietary patterns and asthma and allergic diseases: Data from the French six cities study

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**Body:** Background: The prevalence of asthma and allergies has risen in recent decades, especially among children in the western world. The increasing prevalence of allergies in children might be related to diet. A study was undertaken to assess the association between dietary patterns, asthma, allergic rhinitis and atopic dermatitis in schoolchildren in France. Methods: A cross-sectional study was performed in six cities of France using ISAAC protocol. Parental questionnaires were used to collect information on allergic diseases and diet with a food frequency questionnaire (FFQ). Data from 7 432 randomly selected schoolchildren aged 9-11 years old were analyzed. The mean intakes of 13 main food items were calculated and used to establish four dietary patterns by principal component analysis. Results: Soft drinks was positively associated with atopic wheeze [OR = 1.61, 95% CI [1.01 -2.58]] for those drinking 3–6 times per week (compared with never drink) and current eczema (OR = 1.63, 95%CI [1.12 -2.37]) for those drinking less than once per week. Intake of fresh fruit juice and citrus fruits were protective factors for lifetime asthma (OR = 0.71, 95%CI [0.54 -0.94]) for those drinking fresh fruit juice 1–2 times per week, and for those eating citrus fruits 3-6 times per week as well as for intake of fresh fish (OR= 0.74, 95%CI [0.56-0.96]. The frequent consumption of fresh fruit juice (p = 0.006), raw vegetables (p = 0.019), red meat (p = 0.008), white fish (p = 0.003), breaded fish (p= 0.015) and dairy products (p = 0.000) were positively associated with atopic wheeze. Conclusion: Consumption of fruits, vegetables and fish may provide some protective effect against allergies.

